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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.            | CONFIRMATION NO. |
|--|-------------|----------------------|--------------------------------|------------------|
| 10/629,978   | 07/30/2003  | Dennis McDevitt      | 022956-0234                    | 9506             |
| 21125  | 7590        | 04/18/2005           | EXAMINER<br>VRETTAKOS, PETER J |                  |
| NUTTER MCCLENNEN & FISH LLP<br>WORLD TRADE CENTER WEST<br>155 SEAPORT BOULEVARD<br>BOSTON, MA 02210-2604 |             |                      | ART UNIT<br>3739               | PAPER NUMBER     |

DATE MAILED: 04/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/629,978

Applicant(s)

MCDEVITT ET AL.

Examiner

Peter J Vrettakos

Art Unit

3739

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 38-40,42-57 and 68-73 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 38-40,42-57, and 68-73 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

The instant action is final.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 38-40, 42-45, 52, 54, 57, and 72 are rejected under 35 U.S.C. 102(b) as being anticipated by Goble et al. (5,702,397).

#### Independent claims 28, 38, 52, 57, and 72

Goble discloses a device (see figure 13) for anchoring a filament (27) with to tissue or bone, comprising; an anchor member (10 – body is 17) adapted to be embedded in bone and having a cavity (20, depicted in figure 13) formed therein; an insertion element (30 – body is 31) adapted to be disposed in the cavity in the anchor member; at least one radial channel (24) formed around a head of the insertion element; and at least one suture-receiving channel (23) formed in (this is seen in figure 10 element 33 in an analogous embodiment) the insertion element and adapted to seat a filament (depicted in figure 13), the suture-receiving channel having a size adapted to substantially secure/compression fit (col. 10:18-25) the filament therein when the

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insertion element is disposed in the cavity in the anchor member. Also note figures 16 and 17 for analogous embodiments.

Dependent claims

39, 40: Channels (23) are on the surface of the insertion element extending from the proximal to distal ends (see figures 13, 16, and 17).

42. Please see figures 13, 16, and 17.

43, 54. The filament is non-movable (col. 10:18-25).

44. The anchor is adapted to be embedded in bone (see Title and threads in figures 13, 16, and 17.)

45. The insertion element's outer diameter is equal to the inner diameter of the anchor member permitting a snug fit for the filament as disclosed in col. 10:18-25.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 47, 48, 49, 51, 53 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goble et al. (5,702,397).

Independent claims 47, 48, 49

Goble makes obvious a device for anchoring a filament to tissue or bone, comprising:

an anchor member adapted to be embedded in bone, the anchor having at least one cavity therein and including first and second components adapted to hold a filament by interference fit (depicted in figures 13, 16, and 17).

Dependent claims

51, 56. The device of claim 49, wherein the at least one cavity includes opposite open ends depicted in figures 13, 16, 17).

Claims 47-49 and 53 all contain language regarding movement of filament, breaking strengths of filament, etc. which are related to the size and strength of the chosen filament. The Office contends that to arrive at the Applicant's disclosed invention one would merely have to perform routine experimentation to determine the corresponding filament size and strength. Therefore, at the time of the invention it would have been obvious to one of ordinary skill in the art to modify Goble in light of routine experimentation. The **motivation** would be to design a suture anchor that was able to hold sutures in place as desired.

Claims 46, 55, 68-71, and 73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goble in view of Le et al. (Re. 36,289).

*No express mention of frangible parts in Goble.*

Le discloses an insertion element or stem or second component (14) **with a frangible portion** (Le, 212, figure 19).

Dependent claims

37, 46. The device of claim 28 (38), wherein the device is formed from a biocompatible material selected from the group consisting of polyethylene, polypropylene, steel, poly-L-lactide and lactide-glycolide compositions. **Le mentions these materials in col. 7:21-31.**

69. Goble depicts flanges in figures 13, 16, and 17.

70-71. See figures 13, 16, and 17

Therefore, at the time of the invention it would have been obvious to one of ordinary skill in the art to modify Goble in view of Le by including a frangible portion into the design of Goble. The **motivation** would be to easily remove the elongate shaft used to insert the Goble anchor.

***Response to Arguments***

Applicant's arguments filed 3-24-05 have been fully considered but they are not persuasive. The Applicant argues that the "mechanical interlock" in Goble precludes friction, and therefore interference or compression fit. The Examiner respectfully

disagrees for the following reasons. Friction is caused by the uneven surfaces (ridges 26 and 35 in Goble figure 13 – analogues are found in figures 16 and 17) of touching objects. As surfaces (ridges) are rubbed together, they tend to “interlock” and offer resistance to being moved over each other. This resistance is a “static” friction. Goble clearly depicts in figure 13 a suture anchor designed with a mechanical interlock with a friction/compression/interference fit, which includes securing a suture (27) between ridges (26 and 35). The suture is “compressed” between the ridges. The ridges “interfere” with the movement of the suture as a result of the resistance or static friction provided by the ridges. The ridges “force fit” secures the suture. To these ends, the related rejections stand.

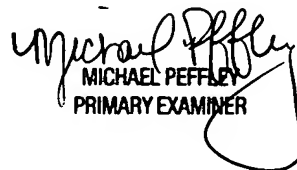
The Applicant also contends that no motivation exists to provide Goble with a frangible rod as there is already a simple and effective technique for inserting the movable clamp into the body. Again, the Examiner respectfully disagrees. As far as the Examiner can understand, the technique to which the Applicant refers is not used in the embodiment the Examiner relies upon in Goble figure 16 and 17. Instead, these figures show a rod (71), which is analogous to the Le's shaft in figure 19, which clearly depicts a frangible section for removing a part of the rod after the insertion element is placed in the lumen of the anchor member. It is a simple and obvious step with a beneficial outcome to include into Goble figures 16 and 17 a rod with a frangible shaft to facilitate removal of the proximal end of the insertion element after placement in the anchor member. Consequently, prior rejections stand and a new rejection has been applied to newly added claim 73.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J Vrettakos whose telephone number is 571-272-4775. The examiner can normally be reached on M-F 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C Dvorak can be reached on 571-272-4764. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pete Vrettakos  
April 6, 2005



MICHAEL PEFFLEY  
PRIMARY EXAMINER